CITY *of* EDMONTON

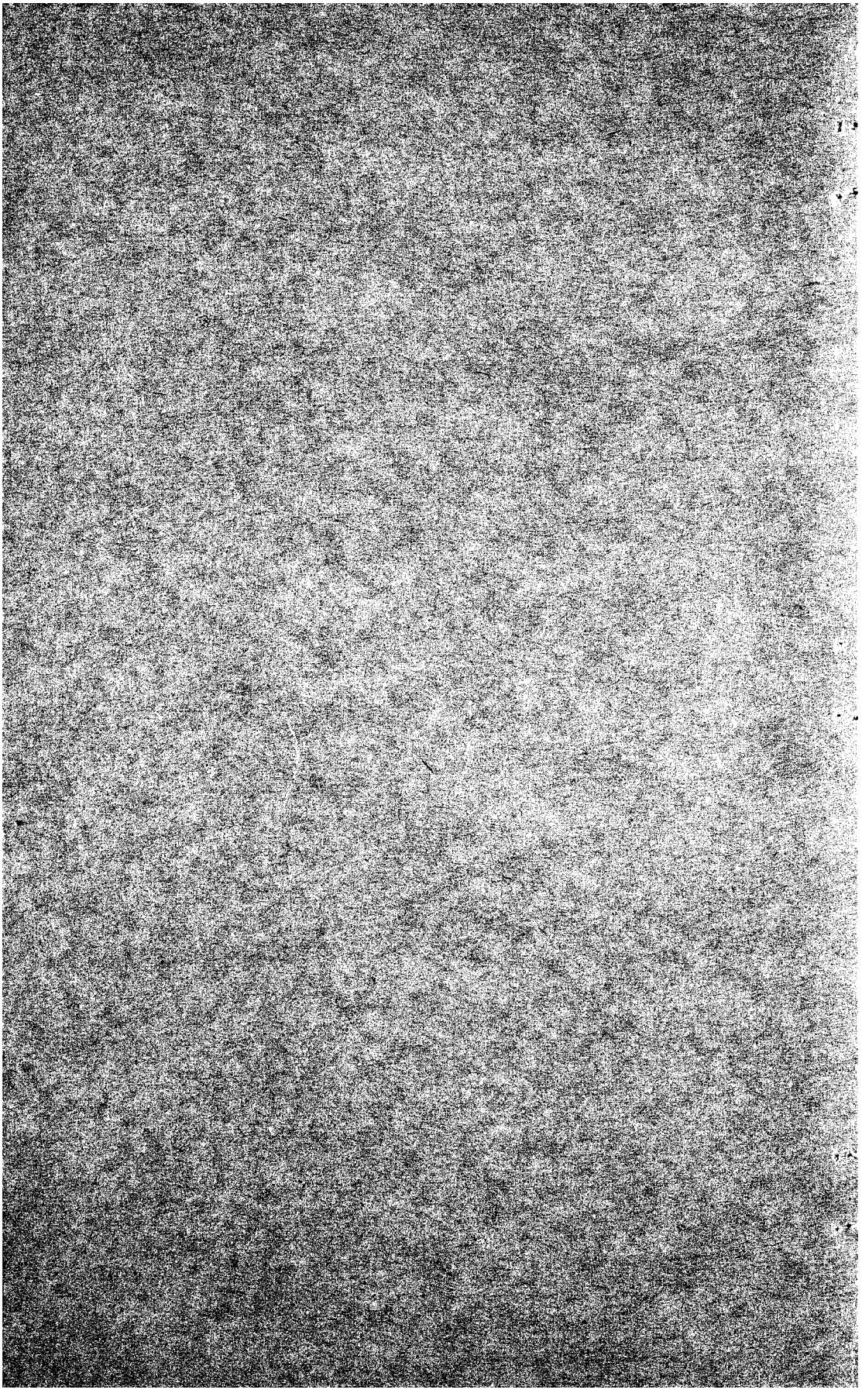
ALBERTA

CITY OF EDMONTON

INDUSTRY · ENERGY · ENTERPRISE

HEALTH DEPARTMENT REPORT

1930



CITY *of*
EDMONTON

ALBERTA

HEALTH
DEPARTMENT
REPORT

1930

Members of Board of Health—1930

Dr. R. B. Leitch—(Chairman to April)
Ald. R. V. Bellamy—(Chairman May to December)
Ald. J. W. Findlay Dr. Harold Orr
Dr. F. W. Crang (Public School Board)
T. S. Magee (R.C. Separate School Board)

Ex-Officio Members

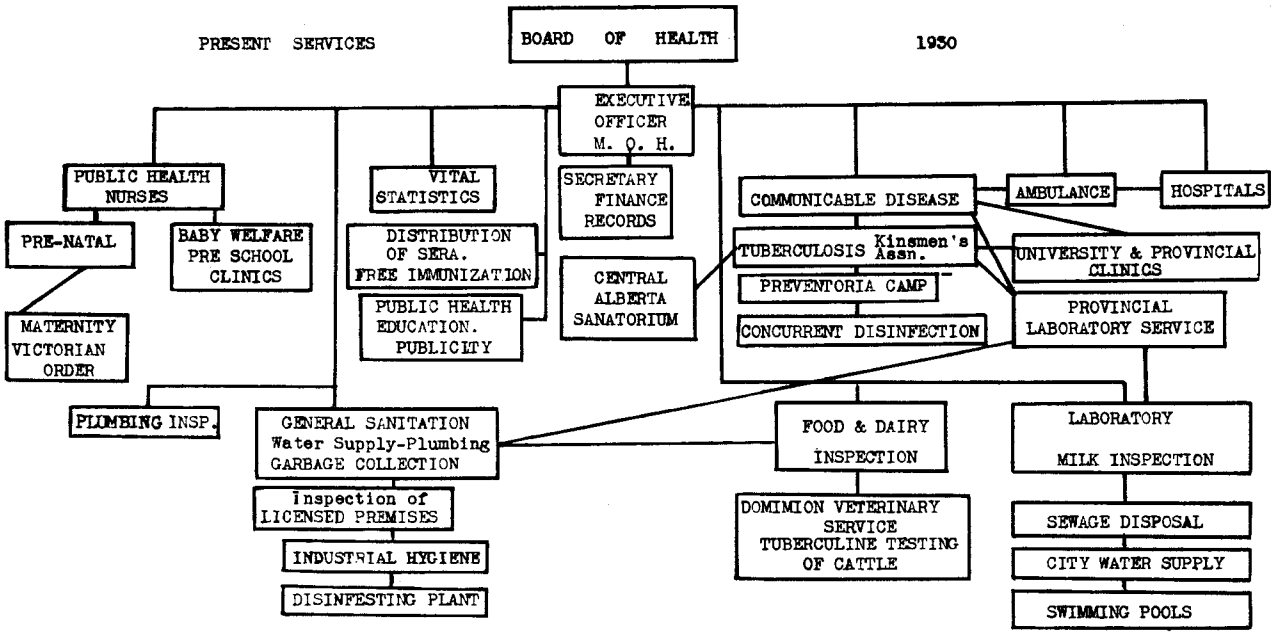
Mayor James M. Douglas
R. B. Jenkins, M.D., D.P.H. A. W. Haddow, Esq., City Engineer
S. Main, Secretary

STAFF

Medical Officer of Health	R. B. Jenkins, M.D., D.P.H.
Secretary	S. Main
Chief Health Inspector	W. R. Graham
Health Inspector	J. H. Blackburn
Health Inspector	A. P. Methuen
Health Inspector	J. D. Williams
Quarantine Officer	R. T. Anderson
Chief Food Inspector	J. H. Part, V.S., M.D.V.
Food Inspector	T. E. Lord
Dairy Supervisor	C. Ellinger
Analyst	H. C. Graham, B.A.
Chief Public Health Nurse	Miss M. Griffith, R.N.
Public Health Nurse	Miss S. C. Christensen, R.N.
Accountant and Statistician	Miss B. B. Murray
Stenographers	Miss A. Kellas and Miss C. Rose

CONTENTS

CITY OF EDMONTON



CO-ORDINATING ORGANIZATIONS

Kinsmen's Association
Victorian Order of Nurses
Provincial Clinics
University Clinics
Provincial Laboratory
Dominion Veterinary Service
Central Alberta Sanatorium
School Medical Services.

VALUE OF SERVICES ACCORDING TO AMERICAN PUBLIC HEALTH ASSOCIATION

A—Vital Statistics	5	H—School Hygiene	12
B—Communicable Disease	16	I—Food and Milk Control	7
C—Venereal Disease	5	J—Sanitation	8
D—Tuberculosis Control	9	K—Laboratory	6
E—Maternity Hygiene	8	L—Health Instruction	4
F—Infant Hygiene	8	M—Cancer Control	2
G—Pre-School Hygiene	8	N—Heart Disease Control	2

ANNUAL REPORT OF MEDICAL OFFICER OF HEALTH

Members of the Local Board of Health and City Commissioners.

Gentlemen:

I beg to submit herewith the annual report of the City Health Department for the year 1930.

As will be seen from the table on comparative statistics, the general death rate was very favorable, 6.79 per thousand population. The greatest gain was made in the age group under one year where there were 27 fewer deaths than in 1929, resulting in an infant mortality rate of 48.92 which I believe, is the best infant mortality rate yet achieved in the city. Although there were 16 more births in 1930 than in 1929 the rate, 20.95, is lower because of the increase in the population. The maternal mortality rate, 4 per thousand births, is also lower. This is, in part at least, due to the fact that so many of the confinements take place in hospitals. Even so, two of the maternal deaths were due to puerperal septicaemia, a preventable disease.

PRENATAL SERVICE

An examination of the table on Stillbirths shows that out of 62 there were 52 due to difficult labor and prematurity both of which might be favorably influenced by prenatal care. As will be seen from the nursing service report more prenatal work is being done, but we are losing a wonderful opportunity through lack of sufficient staff.

The table of principal causes of Death shows Cancer to be considerably in the lead with a total of 72. Diseases of the heart follow with 64 deaths. Diseases of early infancy and Tuberculosis each accounted for 63 deaths. All of these diseases are subject to limitation by applying preventive measures.

COMMUNICABLE DISEASE

The incidence of communicable disease was considerably lower than the preceding year. The reduction occurred chiefly in Measles, Chickenpox, Mumps and Whooping Cough. The fact that only 9 cases of Diphtheria developed during the year is an outstanding proof of the value of the Diphtheria prevention treatment carried out in recent years.

TUBERCULOSIS CONTROL

A total of 55 cases of tuberculosis were reported during the year. These figures do not truly represent the situation, since it is the common experience that this disease is not sufficiently well reported. This in spite of the fact that the knowledge of the location of such cases, is of vital importance to the community at large, which knowledge enables the Local Board with the co-operation of the attending physician to instruct the patient in the proper measures to be taken to protect the family and the community. The Kinsmen's Club enlarged its scope of activities and established a summer camp where over 20 children spent six weeks during July and August. These children were contacts of Tubercular cases and though not infected themselves, were potential cases because of the contact and because of their physical condition. A graduate nurse had charge of the camp and was assisted by V.A.D.'s, Girl Guides and Boy Scouts. The fresh air, sunshine, extra food, rest and supervised recreation given these children at the camp resulted in marked benefit for each child. It is hoped that the Kinsmen will be able to extend this good work.

NURSING SERVICE

The nursing service report shows a considerable increase and development in service particularly in the prenatal visits. The attendance at the Child Welfare Clinic shows an increase of more than 600. A considerable part of this increase being in the pre-school group. Every effort is made to encourage mothers to bring the children for examination before entering school. Certain of the communicable diseases are receiving the attention of our nurses, with marked benefit to the community.

GENERAL SANITATION, INDUSTRIAL HYGIENE, WATER SUPPLIES, ETC.

The work of the district health inspectors has been expanded to take in certain aspects of food inspection which include, examinations of premises, the owners of which have applied for license. Considerable improvement is being made in the method employed to sterilize utensils used in the serving of food. This activity has given the inspectors considerably more work but it is believed that the results will justify the extra effort.

In spite of financial difficulties there has been a considerable increase in the number of dwellings in which water and sewer have been installed. The City Land Department has co-operated well with the Board in modernizing city-owned houses or having those removed which were unsuitable. As will be seen from the report a close check is being kept on the private water supplies.

FOOD AND MILK CONTROL

The number of inspections of food handling places is quite high and there has been a considerable increase in the number of carcasses, about half of 1% of which were condemned as carcasses as well as 824 portions condemned as unfit for food. These figures show clearly the value of the service rendered. An attempt was made during the year to centralize inspection and thus make the service more efficient and ensure a safe supply, by having all animals intended for food, killed under inspection in the city. Exception was taken to the inclusion of Veal. We have advanced so far as a safe food supply is concerned but efficiency was not improved as it would have been if the plan had been carried through.

Our milk supply continues to improve, so far as quality is concerned. Since practically all of the specimens are coming within the 50,000 bacteria per c.c. class and many of the samples show only 3,000 -5,000 per c.c., it appears advisable to raise the standard of the special class which will probably be set at 15,000 per c.c.

The Dairy Supervisor's report emphasizes a serious problem which deserves all the attention we can give it and that is the city dweller who produces and distributes small quantities of milk. In addition to being a menace so far as the milk supply is concerned, the presence of so many animals kept under such conditions is a menace from a cleanliness point of view.

EDUCATION

A course of sixteen lectures was arranged for the benefit of the staff and any others who might wish to attend. The lectures were given by members of the University staff, of the Provincial Department of Health and of city services, and were on topics of interest to health workers. Five addresses were given to various organizations in the city and seven articles were published in the local papers.

Not because it has become customary, but because of sincere appreciation, I wish to mention the services of the Board's staff who have faithfully carried out old duties and willingly assumed new ones.

Yours truly,

R. B. JENKINS,
Medical Officer of Health.

FINANCIAL STATEMENT

EXPENDITURE

	1930	1929
Salaries	$30,644.69	$28,174.71
Printing, Postage and Stationery	1,231.84	1,487.25
Transportation	3,859.82	3,767.67
Telephones	203.90	219.20
Miscellaneous	850.31	316.38
Uniforms	224.00	243.42
Disinfection and Quarantine	335.34	383.14
Cow and Dairy Inspection	110.25	67.19
Burial of Paupers	.....	120.00
Ambulance	810.12	1,076.08
	$38,270.27	$35,855.04

REVENUE

Inspection Fees	$ 201.25	$ 318.25
Ambulance	429.73	791.70
	$ 630.98	$ 1,109.95
Balance Cost of Operation	$37,639.00	$34,745.00

SUMMARY OF STATISTICS

Population (1930 census)	77,557
Area of City (including 1,000 acres of water)	26,520
Persons per acre of land	2.92
School Enrolment	17,943
Natural increase of population	1,133
Cost per capita	47
Births, excluding stillbirths	2,493
Births, city parentage only	1,67C
Births, city parentage only, rate per 1,000 population	20.95
Stillbirths	62
Stillbirths, rate per 1,000 births	35.67
Deaths, excluding stillborn	872
Deaths, citizens only	543
Deaths, citizens only, rate per 1,000 population	6.79
Deaths, citizens only, under 1 year of age	82
Infant mortality rate per 1,000 living births	48.92
Marriages	1,338
Marriages, rate per 1,000 population	16.72
Number of deaths from childbirth	7
Maternal mortality rate per 1,000 births	4.0

COMPARATIVE VITAL STATISTICS (City Only)

	1930	1929
Population	80,000	75,000
Births, exclusive of stillborn	1,676	1,650
Births, rate per 1,000 population	20.95	22.00
Stillbirths	62	39
Stillbirths, rate per 1,000 births	35.67	23.09
Deaths, exclusive of stillborn	543	623
Deaths, rate per 1,000 population	6.79	8.30
Infant deaths (under 1 year)	82	109
Infant deaths, rate per 1,000 living births	48.92	66
Marriages	1,338	1,414
Marriages, rate per 1,000 population	16.72	18.85
Maternal Mortality rate per 1,000 births	4	4.74

VITAL STATISTICS

Births

Male, 872; Female, 804; Total 1,676
Born in Hospital, 1347; born home, 329.
Physician attending, 1,648; unattended, 28.
Of the 1,676 City Births:—
692 or 41.28% are Canadian mothers.
432 or 25.77% are British mothers.
192 or 11.45% are U.S.A. mothers.
360 or 21.50% are Foreign or Unstated mothers.
88 or 5.25% of births were illegitimate, of these
40 or 45.45% are Canadian mothers.
14 or 15.90% are British mothers.
12 or 13.73% are U.S.A. mothers.
22 or 25.02% are Foreign or Unstated mothers.

Stillbirths

Male, 34; Female, 28; Total 62
Legitimate, 61; Illegitimate, 1.
Born in hospital, 55; Unattended, 2.

Ages of Mothers—

15 years to 19 years	1
20 years to 24 years	8
25 years to 29 years	23
30 years to 34 years	7
35 years and over	22
Unknown	1

Nationality of Mothers—

Canadian	20
British	19
United States	7
Foreign or Unstated	16

Cause of Foetal Death—

Dystocia	22
Prematurity	12
Malformation	2
Other Diseases and conditions of mother	25

Deaths

Male, 310; Female, 233; Total 543
Canadian 266
British 161
United States 36
Foreign 70
Not stated 10
Under 1 year of age—
Total Registered, 138; Male, 80; Female, 58.
Total City Cases, 82; Male, 49; Female, 33.
Rate per 1,000 living births—48.92.

13 PRINCIPAL CAUSES OF DEATH

		1930 No.	1930 % Total Deaths	1930 Rate per 100,000 pop.	1929 No.	1929 % total Deaths	1929 Rate per 100,000 pop.
43- 49	Cancer	72	13.25	90	62	9.95	82.7
87- 90	Diseases of Heart	64	11.78	80	58	9.31	77.5
165-202	External Causes	48	8.82	60	43	6.90	57.5
31- 37	Tuberculosis	36	6.63	45	36	5.78	48.
160-163	Diseases of Early Infancy	36	6.63	45	47	7.54	62.7
100-101	Pneumonia	30	5.52	37.5	57	9.15	76.
74- 75	Apoplexy, Paralysis	20	3.68	25	21	3.37	28.
128-129	Acute and Chronic Nephritis	18	3.31	22.5	29	4.66	38.7
11-	Influenza	12	2.21	15	31	4.98	41.3
113-114	Diarrhoea	12	2.21	15	15	2.41	20.
117-	Appendicitis and Typhlitis	12	2.21	15	8	1.28	10.7
159-	Malformation	8	1.47	10	14	2.25	18.7
143-150	The Puerperal State	7	1.28	8.75	8	1.28	10.7
		375	69.00		429	68.86	
	All other causes	168	31.00		194	31.14	
	Total Deaths	543	100.00		623	100.00	

SUMMARY OF CITY DEATHS

	Under 1 yr.	1 4	5 9	10 14	15 19	20 24	25 29	30 34	35 39	40 44	45 49	50 54	55 59	60 64	65 69	70 74	75 79	80 84	85 89	90 94	95 99	100	Totals M.	F.	
I. Epidemic, Endemic & Infectious Diseases	5	6	7	1	2	7	4	3	4	5	5	4	5	2	3	1	2	1	0	0	0	0	43	24	67
II. General diseases not *included in* Class I.	3	2	1	1	2	1	1	2	3	7	10	14	15	7	9	11	4	5	1	0	0	0	42	57	99
III. Diseases of the nervous system and of the organs of special sense	5	1	0	0	3	1	6	1	1	2	3	0	1	3	4	6	1	3	1	0	0	0	24	18	42
IV. Diseases of the Circulatory System.....	0	0	0	2	1	0	0	0	3	7	7	8	11	8	14	20	12	8	7	1	1	0	63	47	110
V. Diseases of the Respiratory System	8	5	0	0	0	1	0	0	1	1	1	2	1	2	2	4	5	3	1	0	0	1	23	15	38
VI. Diseases of the Digestive System	11	5	2	1	2	1	0	0	2	6	5	2	3	2	2	2	1	1	0	0	0	0	32	16	48
VII. *Non-venereal* Diseases of the Genito-urinary system and Annexa	1	0	0	0	1	2	0	0	0	3	3	1	2	2	3	4	1	3	3	0	0	0	12	17	29
VIII. The Puerperal State ...	0	0	0	0	0	1	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	7
IX. Diseases of the Skin and cellular tissue	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	4
XI. Malformation	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	8
XII. Early Infancy	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	13	36
XIII. Old Age	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	2	0	0	0	1	4	5
XIV. External Causes	2	0	3	1	1	6	4	6	3	6	7	4	2	0	1	0	1	1	0	0	0	0	38	10	48
XV. Ill Defined Causes	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	2	0	2
	82	19	13	6	12	20	17	15	19	37	41	35	40	26	39	48	28	28	15	1	1	1	310	233	543

COMMUNICABLE DISEASE BY SEASON

	Total	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total 1929	Outside cases 1930	Outside cases 1929
Acute Poliomyelitis	11	0	1	1	0	0	0	0	1	3	6	0	0	2	13	2
Diphtheria	9	1	1	1	1	0	0	0	0	0	1	2	2	30	13	15
Meningitis (Meningococcic)	4	0	0	3	1	0	0	0	0	0	0	0	0	9	9	2
Scarlet Fever	219	32	50	25	13	20	17	3	5	12	13	13	16	344	15	29
Smallpox	10	1	2	3	4	0	0	0	0	0	0	0	0	6	0	6
Chickenpox	681	132	49	26	52	83	36	45	33	16	41	80	88	1438	2	11
Measles	132	12	5	7	1	4	3	3	6	18	38	23	12	1550	2	11
Mumps	718	154	146	123	78	70	67	37	21	12	4	4	2	1193	5	3
Paratyphoid	7	0	0	5	0	0	0	0	0	1	1	0	0	2	0	0
Rubella	4	0	0	0	0	0	0	0	0	2	2	0	0	9	0	0
Typhoid	7	0	0	0	0	0	0	0	4	2	0	0	1	4	6	6
Whooping Cough	507	47	51	82	39	49	47	53	34	50	17	18	20	806	1	17
Erysipelas	55	11	6	12	8	4	1	1	1	1	4	4	2	61	15	19
Encephalitis Lethargica	1	0	0	0	1	0	0	0	0	0	0	0	0	1	2	0
Pneumonia, Acute Lobar	3	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0
Septic Sore Throat	2	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0
Tuberculosis, Pulmonary	55	4	5	5	2	4	4	8	6	1	1	3	6	50	31	47
Totals	2425	394	315	293	206	234	175	150	111	118	132	148	149	5506	116	168

COMMUNICABLE DISEASE ACCORDING TO AGE AND SEX

	Total	M.	F.	0-1	1	2	3	4	5	6-14	15-24	25-44	45-59	60-69	70 over
Acute Poliomyelitis	11	6	5	0	0	1	0	0	2	8	0	0	0	0	0
Meningitis (Meningococcic)	4	3	1	0	0	1	1	0	2	2	0	0	0	0	0
Diphtheria	9	2	7	1	0	0	0	1	0	4	2	1	0	0	0
Smallpox	10	5	5	0	0	0	0	0	0	1	5	2	2	0	0
Scarlet Fever	219	102	117	0	5	6	9	19	38	109	23	10	0	0	0
Chickenpox	681	346	335	35	37	37	53	47	84	339	19	10	0	0	0
Measles	132	59	73	8	10	7	12	16	18	52	8	1	0	0	0
Mumps	718	337	381	0	12	25	26	16	41	430	111	48	7	1	1
Rubella	4	1	3	0	0	0	0	0	1	0	1	0	1	1	0
Typhoid Fever	7	6	1	0	0	0	0	0	0	3	3	0	1	0	0
Paratyphoid	7	2	5	0	0	0	1	0	0	2	2	2	0	0	0
Whooping Cough	507	247	260	34	37	48	67	60	63	191	6	0	0	1	0
Erysipelas	55	33	22	4	1	0	0	0	1	5	10	11	17	6	0
Tuberculosis, Pulmonary	55	29	26	0	0	0	0	0	0	3	14	17	21	0	0
Pneumonia, Acute Lobar	3	2	1	1	0	0	0	0	0	0	0	1	1	0	0
Septic Sore Throat	2	0	2	1	1	1	1	1	1	1	2	0	0	0	0
Encephalitis Lethargica	1	1	0	0	0	0	0	0	0	1	0	0	0	0	0
Totals	2425	1181	1244	83	102	125	169	159	246	1170	206	103	50	9	1

ISOLATION HOSPITAL

During the year there were admitted 573 patients, discharged 538, died 52, and remaining in hospital at the end of the year, 40.

Out-patients treated for Scabies, 157.

Hospital days, 15,959; average number of patients, 48; operations, 15.

Patients Admitted with:—		Died
Scarlet Fever	178	4
Complications from Scarlet Fever	2	....
Diphtheria	29	2
Diphtheria Carriers	9	1
Diphtheria Carriers and Meningitis	1	....
Meningitis, all forms	18	14
Acute Poliomyelitis	22	4
Smallpox	6	....
Chickenpox	8	....
Measles	4	....
Rubella	2	....
Mumps	32	2
Whooping Cough	10	....
Typhoid Fever	2	....
Trench Mouth	6	1
Streptococcic Throat	2	....
Quinsy	2	....
Tonsilitis and Laryngitis	8	....
Erysipelas	57	3
Cellulitis and other skin diseases	7	2
Encephalitis	3	....
Ringworm and Kerion	7	....
Scabies	16	....
Impetigo Contagiosa	15	2
Impetigo Contagiosa and Scabies	8	....
Pediculosis	1	....
Gonorrhoeal Vaginitis	13	....
Gonorrhoeal Ophthalmia	3	....
Syphilis	2	1
Tuberculosis	14	8
Diarrhoea and Enteritis	5	1
Epidemic Conjunctivitis	1	....
Pneumonia	1	....
Births	2	....
Non-Infectious and Ch. Diseases of Aged	16	6
Suspects	61	1
	573	52

Mortality—9%

AMBULANCE SERVICE

	Total Services	Indigent Cases	Fees Collected	Cost of Operation
1928	287	41	370.10	933.26
1929	445	157	791.70	1076.08
1930	276	79	429.73	810.12

The mileage travelled was 2,667 at a cost of 21.11c per mile. Compared with 1929, 4,639 at a cost of 13.39c per mile.

IMMUNIZATION, ETC.

The campaign of immunization against Smallpox, Diphtheria and Scarlet Fever has been continued by the Local Board and has been heartily supported by the Separate and Public School Medical Inspection Dept.

	Smallpox Vaccination	Diphtheria Inoculations	Scarlet Fever Antitoxin	Scarlet Fever Toxin
Local Board	174	304	33	7
Public School Board	429	1368	....	..
Separate School Board	260	286	....	..
	863	1958	33	7

A total of 512 visits were made on absentees for non-infectious causes.

Examinations and certificates for re-admission after illness, approximately 3,200.

Exclusion notices, 1,142.

TUBERCULOSIS CONTROL SERVICE: KINSMEN'S NURSE, REPORT

Visits—

Visits to positive cases	1048
Visits to suspect cases	174
Visits to contact cases	336
Co-operative visits	248
Not at home	169
Wrong address, etc.	32
Total visits made by Nurse	2003

Total New Cases or Contacts Reported—

Positives	78
Suspects	28
Contacts	56

Clinics—

Number held		23
Persons examined		319
New examinations, total		158
(a) Positive	41	
(b) Suspects	49	
(c) Contacts	40	
(d) Non-Tubercular	28	
(e) Ex-San.	18	
Re-examinations		51
Re-examinations (ex-san.)		62
Contacts		30
Number of visits of patients to office		228

PATIENTS HOSPITALIZED (All Types of Illness)

	General Hospital	Grace Hospital	Misericordia Hospital	University Hospital	Royal Alexandra Hospital	Isolation Hospital
No. of Hospital Beds	200	35	175	x 228	400	100
Patients admitted	3,479	213	3,567	2,366	7,344	576
Births	359	98	662	.....	856	.....
Deaths	119	2	93	90	297	52
Patients resident	1,940	184	1,932	828	5,678	481
No. Hospital Days	25,716	3,324	.....	16,763	57,144	11,885
Patients, non-residents	1,539	127	1,635	1,734	1,693	152
No. Hospital Days	22,287	2,869	.....	67,924	38,843	4,074
Total Patients	3,479	311	3,567	2,562	7,371	633
Total Hospital Days	48,003	6,193	42,627	84,687	95,987	15,959

x The bed capacity was increased in March from 183 to 228 and in September to 355.

PUBLIC HEALTH NURSING

A total of 3,108 visits have been made as follows:—

	1930	1929
Child Welfare visits	2,753	2,700
Investigation visits	136	155
Pre-natal visits	180	93
Post-natal visits	39	0

Disabilities Found During Home Visits

	Babies	Pre-School Age	Adults		Babies	Pre-School Age	Adults
Infectious Disease	8	9	1	Vascular system	1	0	2
Disease of the Eye	8	9	2	Skin, muscle bone, joints	48	17	1
Lymph Glands	17	74	0	Infectious conditions	6	4	7
Parasites	2	2	0	Metabolism	6	10	0
Endocrin Gland	3	0	2	Digestive system	32	16	0
Genito urinary system	12	5	0	Respiratory system	12	2	0
Nervous system	0	2	0	Congenital	13	0	0
Glandular condition	0	0	2	Other conditions	7	1	2

The following table shows the number of neo-natal deaths that occurred during each month, and the number of months of pre-natal care in each case:

	Deaths	9 months	8 months	7 months	6 months	5 months	4 months	3 months	2 months	1 month	No pre-natal care	No information	Illegitimate
January	3	..	..	1	..	..	..	..	1	..	1	..	..
February	3	..	..	1	1	..	..	1	..	..	..	..	..
March	6	..	..	..	..	1	..	1	..	..	2	2	2
April	4	..	..	1	..	..	..	..	..	1	1	1	..
May	8	..	..	..	4	..	..	2	..	1	..	1	..
June	3	..	..	..	..	..	..	..	..	1	1	1	..
July	5	..	..	1	..	..	..	1	..	..	1	2	..
August	4	1	1	1	..	1	..	..	..	..	..	..	..
September	3	..	..	..	2	..	..	..	..	..	..	..	..
October	5	..	..	..	1	1	..	..	..	1	1	1	..
November	2	1	..	..	..	..	..	..	..	..	1	..	..
December	1	..	..	..	..	..	..	1	..	..	..	..	1
Total	47	2	1	5	8	3	0	6	1	4	8	9	3

Investigations were made into all other city deaths under one year of age. In this way valuable information is obtained for statistical purposes.

CHILD WELFARE CLINICS

Under the direction of the Provincial Department of Health, two Child Welfare Clinics are held each week. Here babies are weighed and examined and mothers advised as to care and feeding, by the Doctor in charge.

The advantage of the pre-school clinic is that it gives parents an opportunity to have defects corrected before the child enters school. It is gratifying to note the number who have availed themselves of the opportunity of these examinations. In cases where defects are found the parents are referred to their own Doctor, or in the case of indigents, to the Out Door Clinic.

Following is a report of the Clinics held in the Civic Block during the past year:

Report of Child Welfare Clinics

	1930	1929
Clinics held during the year	102	99
Babies in attendance	4376	3941
Pre-school in attendance	910	679
Total number in attendance	5286	4620
Average attendance	52	48
New babies admitted	804	711
New pre-schools admitted	164	174
Babies referred to family doctor	37	61
Pre-schools referred to family doctor	32	28

Attendance according to age—

Babies under 1 year	3490	
Babies under 2 years	886	
		4376
Pre-school children under 3 years	354	
Pre-school children under 4 years	264	
Pre-school children under 5 years	150	
Pre-school children under 6 years	109	
Pre-school children under 7 years	33	
		910
Total		5286

With the exception of three clinics held during the year, one of the following pediatricians has been in charge at each clinic: Dr. F. Folinsbee, Dr. D. B. Leitch, and Dr. Folinsbee Newell.

City Health Department Nurses have been in attendance at each Clinic, and follow up the cases in their homes.

During the past year a generalized Public Health Programme has been carried on by the Nurses under the supervision of the Medical Officer of Health. Many home visits are made where cases have been reported to the City Health Dept. by the schools, when children are absent owing to impetigo, scabies, pediculosis and other causes. The Nurse visits the home and instructs the mother in the treatment and care to be taken to protect other members of the family. In many cases it means repeated visits, but it seems worth while, and satisfactory results are usually obtained.

We have before us in Edmonton a golden opportunity for the advancement of Public Health work, and we are hoping to accomplish a great deal more this year, 1931.

INFANT MORTALITY

		Cause of Death	By Season													By Age							
			City Total	January	February	March	April	May	June	July	August	September	October	November	December	Under 1 Day	Under 1 Wk.	Under 1 Mth.	1-3 Months	4-6 Months	7-9 Months	10-12 Months	Outside	Registered Total
1	9	Whooping Cough	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
	11a	Influenza	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	0	1
	21	Erysipelas	3	1	..	..	1	..	..	1	..	..	..	..	..	..	..	1	1	1	..	..	1	4
	24	Meningococcal Meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
	32	Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
	38	Syphilis	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2
2	56	Rickets	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	1	2
	62	Enlarged Thymus	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	0	1
	69c	Purpura Haemorrhagica	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	0	1
3	71a	Meningitis	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	0	1
	80	Infantile Convulsions	3	1	1	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	2	..	0	3
	86a	Mastoid Abscess	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	0	1
4	87	Pericarditis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
	100a	Broncho pneumonia	4	..	1	..	1	1	..	..	..	..	..	..	1	..	..	1	1	1	1	..	3	7
	101a	Lobar Pneumonia	4	1	..	..	..	..	..	1	..	1	1	..	..	..	..	..	1	1	2	..	2	6
	102	Empyema	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
6	108	Septic Ulcers in Mouth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
	112	Gastro Intestinal Haemorrhage	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	0	1
	113	Diarrhoea	8	..	1	..	1	..	..	..	3	3	..	..	..	..	..	1	1	5	1	..	8	16
	118a	Hernia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
	118b	Intussusception	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	2	3
	126	Peritonitis	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	0	1
7	128	Acute Nephritis	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	0	1
	131	Acute Pyelitis	.	..	..	..	..	..	..	..	..	..	..	.	..	..	..	..	..	..	..	..	1	1
9	151	Gangrenous Dermatitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1
	153	Cervical Abscess	2	..	1	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	0	2
	154	Exfoliative Dermatitis	1	1	..	..	..	..	..	..	..	1	1	1	..	..	..	1	..	..	..	..	3	4
10	159b	Foramen Ovale Patent	4	..	1	..	..	..	1	..	..	1	..	..	1	1	3	..	..	..	..	..	2	6
	159c	Congenital Malformation	4	..	..	..	..	2	..	..	2	..	..	..	..	2	..	..	2	..	..	..	5	9
12	160	Congenital Debility	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	4
	161a	Premature Birth	25	2	1	4	3	3	..	4	2	2	3	1	..	17	5	3	..	..	..	..	11	36
	161b	Injury at Birth	4	..	1	..	..	..	..	..	..	1	1	1	..	2	..	..	1	..	..	1	2	6
	162	Haemorrhage of New Born	6	..	..	1	..	1	2	..	2	..	..	..	..	2	..	2	1	1	..	..	2	8
	163	Lack of Care	1	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	0	1
15	180	Accidental Suffocation	2	..	..	..	1	..	..	..	..	..	1	..	..	..	..	1	..	..	1	..	0	2
		Total	82	8	9	6	8	8	5	7	10	8	8	3	2	24	12	11	13	12	8	2	56	138

PRE-NATAL SERVICE

New cases admitted—124.

During the past year a pre-natal service has been established in the City Health Department, and a number of cases are reported by attending physicians. Some are reported to us by the cases themselves. Others we find during our district work, and all city pre-natal cases admitted to the Out Door Clinic are visited by a Health Department Nurse and instructed in pre-natal care and encouraged to report to the Clinic at stated intervals for examination. Following delivery of the mother, each mother and babe are called upon as soon as possible and the mother is instructed according to Doctor's orders in post-natal care, and at the end of six weeks requested to return for examination.

A very excellent co-operation exists between the parents, the public, Doctors and Nurses.

Owing to the present depression and living conditions, there are many more needy families than in former years. Much could be said of our various charitable organizations in the city, for their kind generosity in supplying many of these people with food and clothing.

Hearty co-operation was given at all times by the Victorian Order of Nurses, to whom many cases are referred and by whom many mothers are advised to bring their children to the Baby Clinic.

M. GRIFFITH, Health Department Nurse.

SANITARY INSPECTION

INSPECTIONS—

667 complaints were received from the public, of these 298 were referred to other departments, 119 were unfounded or rectified prior to inspection, 21 were received from other departments.

For the abatement of nuisances 3,749 verbal notices were issued, 1,665 written notices; total, 5,414.

20,843 inspecitons were made of public and private premises, 2,966 reinspections were made.

FOOD INSPECTION—

All premises where foodstuffs are prepared or offered for sale to the public have been kept under supervision and instructions have been issued where necessary. Written notices have been issued to the proprietors of all restaurants and ice cream parlors regarding the sterilizing of utensils used in the serving of food, in accordance with Section 46J of the regulations made by the Provincial Board of Health.

Some opposition was met with regarding the sterilizing of glasses in beer parlors. This matter was taken up with the Commissioner of the Alberta Liquor Control Board and the Alberta Hotel Men's Association, who have assured us that they will co-operate with the Board in this matter. I understand a suggestion has been made with a view to amending the Public Health Act in this respect.

The following foodstuffs were condemned by the sanitary inspectors: Meat, 162 lbs.; Candy, 23 lbs., 12 oz.; Fruit and Vegetables, 2,303 lbs.; Butter, 15 lbs.; Canned Goods, 383 lbs., 2½ oz.; Miscellaneous, 18 lbs., making a total of 2,904 lbs., 14½ ozs. Each sanitary inspector has the supervision of all premises where foodstuffs are prepared or sold in the district he works in.

LICENSES—

Number of licenses granted was 423. Number of licenses held for reinspection, 62. Number of licenses refused, 19.

In this branch of the work inspections of bake shops, barber shops, bath houses, butcher shops, candy and ice cream parlors, dog kennels, entertainment halls, fish dealers, hair dressing and manicuring, laundries, lodging

houses, pool, billiard and dance halls, restaurants and fruit and vegetable wagons, were carried out.

SEWER AND WATER INSTALLATION—

246 notices were issued for the installation of sewer and water. 23 notices were complied with. One building was removed off the line of sewer and water, and six houses were closed. Figures from the Building Inspector show that 675 plumbing permits were issued. Of these 337 were for new installations, the balance, 338, was spread over old buildings and buildings other than dwellings. 14 citizens received financial assistance from the city in the installation of plumbing. The Land Department disposed of 20 old dwellings and 2 barns.

HOUSING SUPERVISION—

833 daylight visits were made to hotels and lodging houses in the city. Inspections of these premises were carried out at night as well, in order to deal with overcrowding, and notices issued to the proprietors of the places where necessary. Sixty-five cards showing the cubical content of rooms in lodging houses were posted and also cards prohibiting spitting.

INDUSTRIAL HEALTH SERVICE—

Inspections were made of mattress manufacturers, clothes cleaning establishments, etc., and advice and instructions given to the proprietors regarding the improvement of conditions under which the work is carried on.

COMFORT STATION SUPERVISION—

The only public lavatory accommodation in the city is at the City Market and in the Civic Block. These buildings are closed at 6 p.m. on week days and on Sunday. The public must avail themselves of the use of the lavatories in hotels and restaurants after that time. Steps should be taken during the coming year to establish a well equipped comfort station in a central location in the city.

SCAVENGING—

The scavenging appears to be carried out satisfactorily. Very few complaints were received at this department during the past year. The complaints that were received were investigated by the inspectors of this Department and instructions issued to the Scavenging division. From the month of October, 2 trucks were put on scavenging work as an experiment. The removal of garbage has been carried out in a satisfactory manner. Three men are employed loading and 18 to 20 loads per day are removed, 4 yards to a load. Before starting to the dump a canvas cover is placed over the load to eliminate the dust nuisance. The trucks replaced 5 teams; 12 teams are still employed in scavenging work, in residential districts. Three teams are on the removal of paper and dry material in the north end. One team of night scavenging work for the North Side and one for night work on the South Side. Five teams are employed on the South Side in the removal of garbage. All rubbish from the South Side is deposited on the hillside on 92nd Avenue near Mill Creek.

Very few complaints have been received regarding city dumps. Two men are employed on the dump at Grierson Street, one man at the dump at 132nd Street and 107th Avenue, and one man at the dump at the north end of the city. The lanes have been kept in fair condition this winter due to the mild winter and the lack of snow.

Clean-up work was commenced by May 1st and continued until May 31st. This work was carried out very satisfactorily; 1,449 loads of rubbish were removed.

PLUMBING INSPECTION—

In the plumbing division of the work, 449 notices were issued in regards to plumbing.

WATER SUPPLY—

Number of yard hydrants applied for	13
Number of yard hydrants granted	12
Number of yard hydrants refused	1
Total	13

Number of water samples taken	133
Number of wells placarded	42
Number of wells filled in	7
Number of wells chlorinated	22
Number of inspections of water supply	6
Number of instructions re chlorinating sent out	31
Number of wells inspected	160
Number of samples of tap water taken	10

(These 10 also included in number of water samples taken)

ENFORCEMENT OF REGULATIONS—

Instructions have been issued to the Health Inspectors to use prosecution only as a last resort in the enforcement of the regulations, but instead to use a policy of explanation of the requirements of the Public Health Act. This policy has been found to work satisfactorily in most cases, as evidenced by the small number of prosecutions. Prior to the police court proceedings, a letter is addressed to the defaulting party requesting their presence at this office when the provisions of the Act and the penalties for neglecting same are again carefully explained.

PROSECUTIONS—

Breaches of By-law 9, section 41 (1917) (clean vacant lots)	4
Breaches of 7-14-22 (1929) (ash and garbage receptacles)	4
Breaches of Sec. 122, sub-sec. 12 (verminous condition of premises)	2
Breaches of Regulation 250, P.H.A. (cease using common drinking cup)	1
	11

CONVICTIONS—Total 11.

W. R. GRAHAM, Chief Health Inspector

REPORT OF PLUMBING INSPECTOR

	No. Applications	No. Approved
Plumbing Installations	675	675
Gas Installations	880	880
Sewer and Water Pipe Installations	571	476
	Complaints	Justified
Gas Fumes	27	27

J. H. HUNTBACH, Plumbing Inspector.

DAIRY INSPECTION

Six hundred and two (602) applications for dairy licenses were received, four hundred and sixty-eight (468) of which come under my report as follows:

	Totals	Granted	Refused	In Abeyance
Local and within 15 mile radius of city (milk)	348	331	16	1
More distant points (cream)	120	110	9	1
Total	468	441	25	2

Thirty-one (31) dairy licenses were suspended during the year, six of which were suspended indefinitely on account of indifference shown to warnings. Twenty-five (25) licenses were suspended for short periods on account of continued faulty methods in the production of milk or cream.

The length of time that a license was suspended varied from one to several days. In one case, early in the year where a license was suspended,

the dairy farmer, a few months later, was one of the prize winners in a clean milk competition, incidentally setting himself a standard which he seems anxious to maintain. In many cases the required improvements were made within a few hours after notification had been received that a license was suspended, yet in each case previous warnings were not observed.

I would suggest that all milk or cream which is consumed in fluid form both in the pasteurized and raw state within the City of Edmonton be graded under a system where both the bacterial count and the sanitary conditions under which the milk or cream is produced, is taken into consideration when determining the grade. Such a plan would appear to be well covered in a modified form of the United States Standard Milk Ordinance. This system brings the milk producer and distributor up to the desired standard more readily than a method which depends in part on the suspension of a license.

During the year arrangements were made with the milk plants whereby they forward to this Department weekly the automatically recorded time and temperature charts of the previous week of each pasteurizing machine in use. This arrangement is working satisfactorily.

Engineering improvements where necessary in pasteurizing equipment are being made from time to time, and the management of the milk plants appear anxious to co-operate for the betterment of the milk supply.

There are more than five tons of raw milk consumed in the city daily—milk which is not pasteurized and in a great many cases is produced under conditions which will never be satisfactory; of this further mention is made later in this report.

There are about thirty (30) licensed distributors who sell raw milk from wagons—this milk is produced under rather favorable conditions and as raw milk is of a high standard, but the risk attached to raw milk regarding milk borne disease is still present. During the first week of December, four cases of Scarlet Fever were reported amongst young children within the City of Edmonton. Upon investigation by this Department it was discovered that the milk which was being consumed by these children was, in each case, raw milk, and was from the same dairy. Upon further investigation of the milk producer's premises, a cow having a diseased udder was discovered. Separate samples of milk drawn from each quarter of the udder of this diseased cow were then taken to the Provincial Laboratory, University of Alberta, where it was found that the sample of milk from one quarter of the udder contained an almost pure culture of haemolytic streptococcus, being of the group of organisms which cause Scarlet Fever and Septic Sore Throat.

Although the dairy farmer stated that the milk from this cow was not being mixed with the milk which was offered for sale, the fact remains that the milking pail which was used in obtaining the milk from the diseased cow was being washed in the same water in which were all the other dairy utensils. It will readily be seen that where sterilization of all dairy utensils and milk bottles is not perfect, communicable disease can spread through a community very rapidly. Whether this was the source of the disease or not, it must be obvious that all the care taken by this dairy farmer, who is considered to be a good dairyman, was as so much wasted effort through his failure to wash his infected dairy pail separately from his other dairy utensils.

Located within the city are more than three hundred householders who keep cows which vary in number from one to three and which are referred to in the following way. There are approximately one hundred and seventy-five householders who keep not more than one cow, the milk of which is stated to be for their own use only and not sold. Many of these cows are of an inferior type and are poorly fed. The milk producer who now requires the most urgent attention from this Department is the owner of small herds within the city limits, who is particularly likely to lack the best facilities for handling milk, and if, as often happens, his milk business is only a side-line, he is very likely to minimize the number of proper precautions also.

The only safe proceeding is to exact from small producers, who wish to sell their milk, the attainment of the same safety and quality standards exacted for the general milk supply. No argument can be advanced on health grounds that will justify health authorities in permitting a lower standard of safety for such milk; and no argument can be advanced on

economic grounds which will permit a milk of low standard of safety and quality, and frequently produced under insanitary conditions, to be sold in competition with milk of standard quality. Under the existing conditions, there is no incentive for the poor dairyman to raise his standards, but on the other hand there is a tendency for the good dairyman to lower his.

There are approximately one hundred and thirty-five householders who keep from one to three cows and sell raw milk to their neighbors. It is a common practice of such householders to maintain a miniature but ill-kept farm in the back-yard. The buildings are unsuitable and cramped—a piano crate in one instance having been known to serve as a stable for a Jersey calf. In nearly all cases the dwellings are not modern and have no sewage connections. These persons first acquire the cows and later may voluntarily but frequently otherwise, apply for permission to keep them. On being told that the premises and methods are unsuitable for such purpose they, in nearly all cases, plead poverty or state that the cows were purchased at a high price and that they cannot afford to sell them at a loss.

The most of such milk is produced by persons who never will realize what is meant by cleanliness, and many of them have no inclination to improve and in any event such back-yards and dwellings could not be said to be suitable for the production and handling of milk.

Commencing in January and continuing at frequent intervals, circular letters of instruction dealing with the many phases in the production of clean milk of low bacterial count were written and mailed to all milk producers who come under my supervision. This course of instruction is producing excellent results and will be continued. A score card was compiled for the inspection of dairy premises and a copy was mailed to each dairy farmer in order that he might correct some of the points on which he was weak before the first inspection under the new system was made.

During the spring, a request was published in the press urging the consuming public to store bottles of milk in a cool place and out of the reach of flies and advising them to wash the top of the milk bottle in running water before opening, and to wash all visible remains of milk from empty bottles before returning them to the dairyman, which latter request at any rate met with a ready response as was evidenced upon inspection of the bottles when being returned to the dairies. It might be mentioned that the consumers were also assured that such washing done by them was supplementary to the washing and sterilizing of the bottles carried out by the dairymen. When milk is exposed to light for any length of time, objectionable changes in the flavour take place which might be described as being "stale" and the rather common practice in homes which have no refrigeration of placing a bottle of milk close to a window in order to keep the milk cool is therefore not to be recommended.

Sincere thanks are again offered to the press who published the request and to the Canadian Red Cross Society and the commercial firms connected with the dairy industry who kindly displayed our posters dealing with the above subject during the last Edmonton Exhibition. The Red Cross Society in particular drew the attention of visitors to the poster and further explained its significance.

Since 1922 all milk and cream which is consumed in fluid form within the City of Edmonton has been produced from cows which are tuberculin tested by the Dominion Department of Agriculture, under what is known as the Municipal Tuberculosis Order (M.T.O.) but much greater progress can be made in the eradication of bovine tuberculosis under what is known as the restricted area regulations where all cattle within a prescribed area are tuberculin tested. Alberta is the only province in the Dominion of Canada which has not yet taken advantage of such a facility.

During the year two more dairies who produced and retailed milk in the raw state voluntarily commenced to sell their milk to pasteurizing plants. The number of cows at these two dairies totalled more than fifty. It is most probable that early in 1931 another milk producer who at present retails raw milk from his herd of nearly a hundred cows, will commence to pasteurize with modern equipment. Still another producer of the progressive type who at present retails raw milk from his own herd, has advised me that he intends to commence pasteurizing within the next few months with equipment which will meet with our approval. Of the above

mentioned raw milk dairies, only one of eight cows is situated within the city limits.

An improvement in the design of the check valve was suggested to the manufacturers of one of the newer types of milking machines where the milk container is suspended from the body of the cow by a circingle during milking. This improvement greatly facilitates the cleaning of the valve and lessens the risk of contamination of the milk. The manufacturers forwarded several new valves to me for free distribution amongst present owners in this district, and they are working very satisfactorily. The manufacturers also advised me that they might replace any such valves free of charge upon request, and I shall be glad to give further information to any Health Departments who may be good enough to write me.

Owing to the falling prices of wheat toward the end of the year, numerous requests were made by farmers to have their farms inspected with a view to taking up dairying. This took up a great deal of time and in many cases the buildings were not suitable for dairying and the farmer through financial circumstances, was unable to make the required improvements, with the result that a number of them never made an application for license.

Nine hundred and eighty-seven (987) inspections were made. Fewer inspections than usual were carried out owing to the rather large number of special inspections made necessary by milk producers scattered in various parts of the district where bacterial counts were high.

During the year I attended two meetings held by dairymen at which I had been invited to speak. Several letters were received during the year from health authorities, expressing themselves in favor of the results gained here and making enquiries regarding our methods in dairy inspection.

All of which is respectfully submitted.

C. ELLINGER, Dairy Supervisor.

LABORATORY SERVICE

Altogether there were one thousand and fifty samples of retail milk taken and examined during the year.

Of one thousand and forty-eight submitted to bacterial examination, twenty-four were spoiled by a mishap. The results of the others are tabulated. Those samples which could not be accurately counted due to the growth of spreader organisms are not taken into account in arriving at the percentage in each group.

MONTH	Special	Under 100,000	Under 200,000	Under 300,000	Under 400,000	Under 500,000	Under 1 Million	Over 1 Million	Spreaders	Total
January	67	11	6	2	0	0	0	0	1	87
February	77	3	6	1	2	0	0	0	0	89
March	80	6	2	2	0	0	0	0	0	90
April	92	11	4	2	1	0	2	0	0	112
May	74	7	4	1	0	0	0	0	0	86
June	72	2	1	4	0	1	0	0	0	80
July	68	2	0	0	1	1	1	0	6	79
August	68	5	4	1	0	0	0	3	2	83
September	61	0	2	0	2	0	0	0	0	65
October	72	9	1	1	0	0	0	0	0	83
November	81	2	1	0	0	0	0	0	0	84
December	77	7	2	0	0	0	0	0	0	86
Total	889	65	33	14	6	2	3	3	9	1024
Percentage	87.6	6.4	3.3	1.3	.6	.2	.3	.3		

87.6% of the samples gave count of 50,000 or less, compared with 59.5% of the samples falling in the first class in 1929, which is substantial evidence of improvement and an exceptionally good showing for the year.

The average butter fat content also was very much higher than the previous year, running 3.82%. The average butter fat each month has varied but little from this figure, the lowest month, March, showing 3.68% and the highest, October, 3.92%. The solids not fat were determined on each sample and the average figure obtained was 8.65%.

As the proper cooling and keeping cool of all milk for sale is of such importance in ensuring that the milk will keep satisfactorily, this has been checked up on all samples obtained except during the cold weather. Some of the milk men who were not cooling as they should, found it necessary to improve if they were to get a satisfactory rating from this department and having tried it out found that it certainly paid them in their business. As many of our homes are lacking in facilities for keeping milk cool, it is especially important that it be well chilled before delivery if it is to stand up to the misuse it is later to receive.

During the year an attempt was made to score all samples according to the amount of sediment obtained in our sediment tests (from one pint of milk). Ten marks were given where there was no appreciable sediment and lower marks according to the amount found. The average mark obtained for the year was 8.97 which again is a very creditable showing.

This year we have tried out a system of scoring all the milk vendors from the results of the test of their samples and partly from the equipment and methods they use in handling their product. The names of those who score 75 or more are given out for publication that credit may be given them in their efforts to assist us in producing the best possible milk. Each vendor in addition is sent a detail statement of his marks each month together with the marks of the previous month so that he may see what progress he is making. As any system of marking, no matter how carefully worked out, cannot but be to some extent arbitrary, it must be understood that grading a vendor "unsatisfactory" or in other words, withholding his name from publication, is to be interpreted as constructive criticism rather than condemnation. Our grading system has worked out very satisfactorily from every standpoint and I think can be given most of the credit for the very fine showing of our milk samples this year. The marks obtained have been steadily increasing and we have now regularly about three quarters of our vendors in this first class.

In addition to the regular retail samples there were examined twenty-eight special samples, most of which were brought in by dairymen or by customers for their own information. In most cases only a test for butter fat was made although some had more complete examination. The average butter fat was 3.65%. The average solids not fat for ten samples was 8.62%. The bacteria count was made on eight samples and mostly ran high. There were also run three samples of cream, two of ice cream and six of superior milk.

As a check on the proper pasteurization, samples were taken of raw and pasteurized milk for bacteria count. Tests were made on the cleanliness of apparatus and sterilization of bottles, etc. As an additional check the charts from each pasteurizing plant giving the automatic recordings of the temperature and holding time of each vat of milk are received and checked over in this office each week. These recording thermographs are also checked frequently against a standard thermometer to make sure they read correctly.

During the year there were one hundred and seventy-nine inspections made of premises of single cows where milk was to be sold. Seventy-one places were approved for license on these inspections, forty from previous inspections, and twenty-three were reported against. Considerable time was given to inspection of private cows and assisting with the Tuberculin test in the city.

In connection with the sanitary control of the swimming pools, of which we have five operating in the summer time and two in the winter, considerable time has been given to the question of always keeping the water in good condition. Four pools operate on the continuous filtration system and one on the old "fill and draw" method. None are equipped with liquid chlorine apparatus. Color standards, test solutions were made up to adjust the dosage of chloride of lime so as to get as complete sterilization

as possible without discomfort to the bathers and frequent tests were made in addition to those made by the operating staff. Three hundred and thirty-eight samples of swimming pool water were taken for bacterial examination. Twenty-two gave counts of over 200 per cubic centimetre and only two gave positive colon test in 10 c.c. quantities. About one hundred and ninety chemical tests were made on the water.

Our City Sewage treatment plants have taken a lot of time. Each plant is more or less a separate research problem. Our new "number three" has been successfully operating for some time with good results. Biochemical oxygen demand tests and total dissolved and filterable solids have been determined on samples of raw and treated sewage, to control or modify our treatment. The separate sludge digestion chamber has been tested for pH value of the liquid and gas samples taken to the University for test. Standard pH color standards and test indicator solutions have been made up to properly control the fermentation. The total solids have shown a reduction of approximately 50%, the solids in solution about 7-8% while our filterable solids which are most apt to cause a nuisance in the river are reduced by almost 90% in the tests run.

H. C. GRAHAM, Analyst and Milk Inspector.

FOOD INSPECTION

Number of Inspections for 1930

Meat and Butcher Shops	1,625
Grocery Stores	1,334
Restaurants	901
Fruit and Confectionery Stores	887
Ice Cream Parlors	631
Fish Shops and Fish Stalls	242
Bake Shops	251
Candy Factories and Candy Kitchens	55
City Market Farm Produce and Home Cooking Stalls	2,443
Pop Corn Wagons	15
Wholesales	101
Bottling Works	24
Edmonton Cold Storage	12
Sausage Factories	17
Sundry Visits	133
Total	8,671

Meats Inspected and Condemned

	No. Inspected	Portions	Condemned Carcasses	Weight
Beef	2345½	180	15	8,592 lbs.
Veal	3220	4	7½	605 lbs.
Mutton	3735	21	32½	1,989 lbs.
Hogs	5237	619	21	10,354 lbs.
Total	14,537½	824	76	21,540 lbs.

Other Foodstuffs Condemned

Fish	262 lbs.
Fowl	151 lbs.
Fruit	5,550 lbs.
Vegetables	2,576 lbs.
Bread	225 lbs.
Eggs	47 lbs.
Meat	262½ lbs.
Canned Goods	9,480½ lbs.
Sundries	912½ lbs.
Total	41,006½ lbs.
Complaints received from the public	47
Complaints found on investigation to be justified	32

Prosecutions

A firm of bakers was fined $25.00 and $7.95 costs for selling short weight bread.

One firm was fined $25.00 and costs for selling meat containing preservatives.

One butcher fined costs of court for selling decomposed sausage.

One butcher fined $2.00 and costs of court for selling uninspected veal.

Nine loaves of bread were seized for short weight.

Samples of Foodstuffs Submitted for Analysis

One sample supposed to be alum found in a loaf of bread submitted to the Provincial Analyst. Report stated that sample submitted proved to be Rock Salt.

One loaf of bread was submitted to the Provincial Analyst. Report stated that bread was not adulterated.

Two samples of Cider which had been kept in metal containers were submitted to Provincial Analyst; report stated that cider did not contain any traces of metal.

Sample of chewing gum submitted to Provincial Analyst. Report stated nothing detected of any constituents present which could be considered harmful.

One sample of Hamburger Steak was submitted to Provincial Analyst. Reported sample contained 1.33 parts of sulphurous acid

Four samples of food were submitted to Provincial Analyst; 1 sample with positive results.

One sample of sausage submitted to Provincial Analyst. Report negative.

One sample French Glace Cherries was submitted to Provincial Analyst. Report stated same were fermented and sour, no trace of tin or other metals present.

One sample of Bologna Sausage and one of Hamburger were submitted to Provincial Analyst; neither contained preservatives.

One sample of vinegar submitted. Report stated sample complied with requirements of federal regulations.

Two samples of chocolate bars submitted for analysis. Report stated said bars were found to be in good condition, there being no evidence of any deterioration of any of the constituents.

One sample of canned herring was submitted and Provincial Analyst reported it in good condition.

One sample cooked Tullibee submitted to Provincial Analyst. Report stated that satisfactory analysis could not be made as fish was cooked.

Received report from Liquor Control Board that no person could offer for sale anything which is called by the name of any kind of liquor whether same contains liquor or not, within the Province of Alberta.

J. H. PART, M.D.V., Chief Food Inspector.